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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,617

03/15/2004

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SON-2967

8418

23353 7590 04/18/2011
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EXAMINER

ZAMAN, FAISAL M

ART UNIT

PAPER NUMBER

2111

MAIL DATE

DELIVERY MODE

04/18/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/799,617	Applicant(s) TSUKIMORI ET AL.	
	Examiner Faisal M. Zaman	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claim Objections

1. **Claim 51** is objected to because of the following informalities: in line 2, replace "said universal serial" with --said universal serial bus--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 37-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols (U.S. Patent No. 7,881,413), Iizuka et al. ("Iizuka") (U.S. Patent No. 5,680,596), and Applicant's Admitted Prior Art ("AAPA").

Regarding Claim 37, Nichols discloses a timing notice apparatus (Nichols, Figure 5, item 500) comprising:

a synchronization information extraction circuit (Nichols, Figure 5, item 504) configured to extract frame synchronization information from a reference signal (i.e., the DS1 signal), said frame synchronization information being within said reference signal (Nichols, Column 14, lines 14-20);

a synchronization information generation circuit configured to generate a synthesized signal in the absence of said reference signal (Nichols, Column 15, lines 13-16), a timing notice signal being said frame synchronization information (Nichols, Column 14, lines 14-20) or said synthesized signal (Nichols, Column 15, lines 13-16).

Nichols does not expressly disclose a controller configured to output said timing notice signal only upon receipt of an acquisition command, said timing notice signal demarcating a field of image data.

In the same field of endeavor (e.g., time synchronization among components in a computer system), Iizuka teaches a controller (Iizuka, Figure 2, item 29) configured to output a timing notice signal (Iizuka, Figure 5, item SP5, Column 8, lines 31-36; i.e., the "tuning data signals") only upon receipt of an acquisition command (Iizuka, Figure 5, item SP4, Column 6, lines 28-31; i.e., the "tuning data request command").

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Iizuka's teachings of time synchronization among components in a computer system with the teachings of Nichols, for the purpose of minimizing the data transfer time without causing an erroneous operation in a given operational environment (see Iizuka, Column 1, lines 58-61).

Also in the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches wherein a timing notice signal demarcates a field of image data (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of Nichols, for the purpose of being able to synchronously process image signals in the computer system.

Regarding Claim 38, AAPA discloses wherein said controller is configured to output said timing notice signal at a frame frequency of the image data (AAPA, page 1, lines 5-13 under Description of Related Art).

The motivation that was used in the combination of Claim 37, *supra*, applies equally as well to Claim 38.

Regarding Claim 39, Nichols discloses a general-purpose interface unit interfaced with an external peripheral editing device, said timing notice signal being transferable from said general-purpose interface unit to said external peripheral editing device (Nichols, Figure 5, "Timing to Shelf"),

wherein said general-purpose interface is configured to relay commands and information between a personal computer and said external peripheral editing device (Nichols, Column 14, lines 42-67).

4. **Claim 40** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols, Iizuka, and AAPA as applied to Claim 37 above, and further in view of Chun et al. ("Chun") (U.S. Patent No. 6,898,212).

Regarding Claim 40, Nichols, Iizuka, and AAPA do not expressly disclose wherein said controller is configured to receive said acquisition command from a universal serial bus and output said timing notice signal onto said universal serial bus.

In the same field of endeavor (e.g., timing techniques), Chun teaches wherein timing information may be sent and received over a universal serial bus (Chun, Column 3, lines 53-55).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Chun's teachings of timing techniques with the teachings of Nichols, Iizuka, and AAPA, for the purpose of providing a high speed data transfer interface.

5. **Claim 41** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols, Iizuka, AAPA, and Chun as applied to Claim 40 above, and further in view of Holmdahl (U.S. Patent No. 5,675,813).

Regarding Claim 41, Nichols, Iizuka, AAPA, and Chun do not expressly disclose wherein said controller is configured to receive operating power from said universal serial bus.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein a controller is configured to receive operating power from said universal serial bus (Holmdahl, Column 4, lines 43-47).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device interconnection techniques with the teachings of Nichols, Iizuka, AAPA, and Chun, for the purpose of preventing the need for an external power supply at the controller.

6. **Claims 42-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, Pries et al. ("Pries") (U.S. Patent No. 6,118,769), and AAPA.

Regarding Claims 42 and 44, Iizuka discloses a computer (Iizuka, Figure 2, item 1) comprising:

an interface unit (Iizuka, Figure 2, item 18B) configured to transmit an acquisition command (Iizuka, Figure 5, item SC7), said acquisition command being generated when an editing start command is input through an operation unit (Iizuka, Figure 5, item SC3, Column 5, lines 63-67).

Iizuka does not expressly disclose wherein said interface unit is configured to re-transmit said acquisition command after receiving a timing notice signal, said timing notice signal demarcating a field of image data.

In the same field of endeavor (e.g., timing control techniques), Pries teaches wherein an interface unit is configured to re-transmit an acquisition command after receiving a timing notice signal (Pries, Column 7, lines 21-39).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Pries' teachings of timing control techniques with the teachings of Iizuka, for the purpose of assuring the timing is continuously synchronized.

Also in the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches wherein a timing notice signal demarcates a field of image data (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of Iizuka, for the purpose of being able to synchronously process image signals in the computer system.

Regarding Claim 43, AAPA teaches wherein said interface unit receives said timing notice signal at a frame frequency of the image data (AAPA, page 1, lines 5-13 under Description of Related Art).

The motivation that was used in the combination of Claim 42, *supra*, applies equally as well to Claim 43.

7. **Claim 45, 47, 54, 55, 57-60, and 63** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA.

Regarding Claims 45 and 60, lizuka discloses an editing system comprising:

a computer (lizuka, Figure 2, item 1) configured to transmit an acquisition command (lizuka, Figure 5, item SC7) and await receipt of a timing notice signal (lizuka, Figure 5, item SC8);

a timing notice apparatus (lizuka, Figure 2, item 2) configured to await receipt of said acquisition command (lizuka, Figure 5, item SP4) and transmit said timing notice signal (lizuka, Figure 5, item SP5), said timing notice signal being transmitted upon receipt of said acquisition command (lizuka, Figure 5, item SP5).

lizuka does not expressly disclose said timing notice signal demarcating a field of image data; and

wherein said timing notice signal is within a reference signal, said timing notice signal being extractable from within said reference signal.

In the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches a timing notice signal demarcating a field of image data; and

wherein said timing notice signal is within a reference signal, said timing notice signal being extractable from within said reference signal (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of lizuka,

for the purpose of being able to synchronously process image signals in the computer system.

Regarding Claim 47, AAPA wherein said timing notice apparatus is configured to transmit said timing notice signal at a frame frequency of the image data (AAPA, page 1, lines 5-13 under Description of Related Art).

The motivation that was used in the combination of Claim 45, *supra*, applies equally as well to Claim 47.

Regarding Claim 54, lizuka discloses wherein said timing notice apparatus comprises:

a general-purpose interface unit (lizuka, Figure 2, item 28) interfaced with an external peripheral editing device (lizuka, Figure 2, item 1), said timing notice signal being transferable from said general-purpose interface unit to said external peripheral editing device (lizuka, Figure 5, item SP5),

wherein said general-purpose interface is configured to relay commands and information between said computer and said external peripheral editing device (lizuka, Figure 2, item 28).

Regarding Claim 55, lizuka and AAPA do not expressly disclose wherein a second timing notice apparatus is connectable to said computer, said second timing notice apparatus being configured to await receipt of said acquisition command and

Art Unit: 2111

transmit a second timing notice signal. However, it would have been obvious to one having ordinary skill in the art to have provided a second timing notice apparatus, since it has been held that duplicating parts of invention involves only routine skill in the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Regarding Claim 57, lizuka discloses wherein said second timing notice signal is transmitted upon receipt of said acquisition command (lizuka, Figure 5, item SP5).

Regarding Claim 58, lizuka discloses wherein frame frequencies of said image data and second image data differ, said second timing notice signal being transmissible from said second timing notice apparatus (lizuka, Figure 2, item 2) at said frame frequency of the second image data (lizuka, Figure 5, item SP5).

Regarding Claim 59, AAPA discloses wherein said second timing notice signal is within a second reference signal, said second timing notice signal being extractable from within said second reference signal (AAPA, page 1, lines 5-13 under Description of Related Art).

The motivation that was used in the combination of Claim 45, *supra*, applies equally as well to Claim 59.

Regarding Claim 63, lizuka discloses wherein said editing apparatus transmits said acquisition command in response to an editing start command, said editing start

command being an input to an operation unit (Iizuka, Figure 5, item SC3, Column 5, lines 63-67).

8. **Claims 46, 53, and 62** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claims 45 and 60 above, and further in view of Nichols.

Regarding Claims 46 and 62, Iizuka and AAPA do not expressly disclose wherein said timing notice signal is creatable in the absence of said reference signal.

In the same field of endeavor (e.g., timing control techniques), Nichols teaches wherein a timing notice signal is creatable in the absence of a reference signal (Nichols, Column 15, lines 13-16).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Nichols' teachings of timing control techniques with the teachings of Iizuka and AAPA, for the purpose of being able to continue performing tasks in the event the reference signal has failed.

Regarding Claim 53, Iizuka and AAPA disclose wherein said timing notice apparatus comprises:

a synchronization information extraction circuit configured to extract frame synchronization information from a reference signal, said frame synchronization information being within said reference signal (AAPA, page 1, lines 5-13 under Description of Related Art);

a controller configured to output said timing notice signal only upon receipt of an acquisition command (Iizuka, Figure 5, item SP5), said timing notice signal demarcating a field of image data (AAPA, page 1, lines 5-13 under Description of Related Art).

Iizuka and AAPA do not expressly disclose a synchronization information generation circuit configured to generate a synthesized signal in the absence of said reference signal, said timing notice signal being said frame synchronization information or said synthesized signal.

In the same field of endeavor, Nichols teaches a synchronization information generation circuit configured to generate a synthesized signal in the absence of said reference signal (Nichols, Column 15, lines 13-16), a timing notice signal being said frame synchronization information (Nichols, Column 14, lines 14-20) or said synthesized signal (Nichols, Column 15, lines 13-16).

The motivation that was used in the combination of Claim 46, *supra*, applies equally as well to Claim 53.

9. **Claims 48, 52, and 61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 45 and 60 above, and further in view of Pries.

Regarding Claims 48 and 61, Iizuka and AAPA do not expressly disclose wherein said computer is configured to re-transmit said acquisition command after receiving said timing notice signal.

In the same field of endeavor (e.g., timing control techniques), Pries teaches wherein a computer is configured to re-transmit an acquisition command after receiving a timing notice signal (Pries, Column 7, lines 21-39).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Pries' teachings of timing control techniques with the teachings of Iizuka and AAPA, for the purpose of assuring the timing is continuously synchronized.

Regarding Claim 52, Iizuka and AAPA disclose wherein said computer includes a tangible non-transitory computer-readable storage medium, a computer program embodied in said storage medium comprising:

a device driver (Iizuka, Figure 2, item 18B) configured to transmit said acquisition command (Iizuka, Figure 2, item SC7) and thereafter await said receipt of the timing notice signal (Iizuka, Figure 2, item SC8).

Iizuka and AAPA do not expressly disclose an application program interface configured to resend said acquisition command to said device driver upon a notification from said device driver, said notification indicating said receipt of the timing notice signal.

In the same field of endeavor, Pries teaches an application program interface configured to resend said acquisition command to said device driver upon a notification from said device driver, said notification indicating said receipt of the timing notice signal (Pries, Column 7, lines 21-39).

The motivation that was used in the combination of Claim 48, *supra*, applies equally as well to Claim 52.

10. **Claim 49** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 45 above, and further in view of Chun.

Regarding Claim 49, Iizuka and AAPA do not expressly disclose wherein said timing notice apparatus is configured to receive said acquisition command from a universal serial bus and transmit said timing notice signal onto said universal serial bus.

In the same field of endeavor (e.g., timing techniques), Chun teaches wherein timing information may be sent and received over a universal serial bus (Chun, Column 3, lines 53-55).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Chun's teachings of timing techniques with the teachings of Iizuka and AAPA, for the purpose of providing a high speed data transfer interface.

11. **Claims 50 and 51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, AAPA, and Chun as applied to Claim 49 above, and further in view of Holmdahl.

Regarding Claim 50, Iizuka, AAPA, and Chun do not expressly disclose wherein said timing notice apparatus is configured receive operating power from said universal serial bus.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein an apparatus is configured to receive operating power from said universal serial bus (Holmdahl, Column 4, lines 43-47).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device interconnection techniques with the teachings of Iizuka, AAPA, and Chun, for the purpose of preventing the need for an external power supply at the controller.

Regarding Claim 51, Holmdahl teaches wherein said computer is configured to supply operating power to said universal serial bus (Holmdahl, Column 4, lines 43-47).

The motivation that was used in the combination of Claim 50, *supra*, applies equally as well to Claim 51.

12. **Claim 56** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 55 above, and further in view of Holmdahl.

Regarding Claim 56, Iizuka and AAPA do not expressly disclose wherein a second timing notice apparatus is connectable to said computer through a hub.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein a second apparatus is connectable to a computer through a hub (Holmdahl, Figure 2, item 32).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device

interconnection techniques with the teachings of Iizuka and AAPA, for the purpose of allowing additional devices to communicate with the computer.

Prior Art of Record

13. The prior art made of record and not relied upon (cited on the attached PTO-892 form) is considered pertinent to applicant's disclosure.

Response to Arguments

14. Applicant's arguments with respect to claims 37, 42, 44, 45, and 60 have been considered but are moot in view of the new ground(s) of rejection presented above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faisal M. Zaman whose telephone number is 571-272-6495. The examiner can normally be reached on Monday thru Friday, 8 am - 5:30 pm, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2111

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Faisal M Zaman/
Primary Examiner, Art Unit 2111